BY HAND

February 14, 2005

Mr. Jonathan Trout
Secretary/Treasurer
Louisville Metro Air Pollution Control District Board
850 Barret Avenue
Louisville, KY 40204-1745

RE: Comments on STAR Proposed Regulations

Dear Mr. Trout:

On behalf of Zeon Chemicals L.P., I appreciate the opportunity to offer comments on the proposed Strategic Toxic Air Reduction (STAR) regulations.

We have cooperated with the extensive review conducted by fellow members of the Greater Louisville Inc. (GLI) Air Toxics Task Force and the Louisville Chemistry Partnership (LCP). We concur with both GLI's and LCP's comments on the STAR program and by reference incorporate them into these comments.

We will let GLI's and LCP's submittals speak to the many detailed issues we have with the proposed regulations. Herein, we will comment on certain major concerns, as we see them, or specific issues that could have major ramifications on Zeon.

As you know, we have participated in the West Jefferson County Community Task Force since its inception. When that group's draft Risk Assessment of the west Louisville ambient air monitoring data was issued, Zeon promptly responded to Mayor Abramson's call to us, as a major 1,3-butadiene (BD) emitter, to significantly reduce our ongoing releases. Substantial reductions of BD and other chemicals of potential concern had preceded this effort over the previous 12 years of our ownership of local synthetic rubber manufacturing facilities. These past efforts have been openly documented to you and the public in several forums. We are proud of our emission reduction successes and remain committed to all future reasonable reduction opportunities. We likewise appreciate the need for reasonable district-wide air toxic regulations and will continue to work directly---and through GLI and/or the LCP---with APCD to that end.

Our specific comments are as follows:

1.) Any regulation needs to be reasonable. STAR, as proposed, is not a reasonable approach to regulating air toxics in Louisville. The previously mentioned comments from GLI and LCP as well as those which follow should make that point abundantly clear.

2.) We are very concerned about the development process of these regulations. Comments have been made that there was stakeholder involvement in the regulations' development. Though the extensive number of review meetings in the informal development process was helpful, they hardly permitted sufficient consideration and incorporation of reasonable elements.

Industrial members (along with many other stakeholders) **did** participate in the development of a Risk Management Plan (RMP) prior to the issuance of the West Louisville Air Toxics Study Risk Assessment report. That plan envisioned multiple stakeholders involved in a multi-pronged effort to reduce emissions of targeted air toxics, only one of which was new regulations. The activity options list was as follows:

a.) Public Awareness
b.) Education of Sources
c.) Education of Health Providers
d.) Technical Assistance
e.) Pollution Prevention
f.) Political Action
g.) Economic Assistance
h.) Public Health Incentives
i.) Regulatory
j.) Legal Actions

Unfortunately, other than the 1,3-butadiene (BD)-emitters early reductions, all efforts in the past year have been kept within APCD in assembling what became the STAR package.

We have been told that the RMP was not followed because of the negative experience APCD had with the BD-emitters. While the APCD-forced conversion of voluntary commitments to Enforceable Board Orders was not smooth, it's hardly a valid reason for abandonment of a comprehensive plan.

We've also been told that since it was decided to make the control of air toxics a citywide effort, that the RMP template was no longer applicable. The multi-stakeholder template of the RMP can work for any size jurisdiction. Obviously, the representatives would have to be citywide rather than just west Louisville or Rubbertown as the RMP contemplated. Further, consider that the RMP template is essentially what the state air toxics task force is now using to develop their program.

The regulated community and the public need ample opportunity to participate in the generation of this important document. Accordingly, further STAR development should be directed to a multi-stakeholder process. (The multi-stakeholder SIP Plan of the early 1990's, which brought about the fair implementation of the mandated 15% VOC emission reduction,

was enormously successfully and should serve as a model for further development of this air toxics regulatory package.)

3.) There is no evidence that the proposed STAR regulation will allow Louisville residents to meet the stated health risk goal of one in one million lifetime cancer risk. The regulation focuses on only a small part of the overall public health risk, chemical exposure. Even so, background levels of pollution are not addressed by the STAR regulation. The ambient air monitoring study showed these to be significant contributors to public health risk and leave unanswered questions about the effectiveness of STAR in achieving the stated goal. Given the extreme reductions required in air emissions by the regulation and the potential loss of high-paying manufacturing jobs to the community, a comprehensive study of the STAR program and its substantive impact should be conducted prior to adoption of the regulation.

4.) Zeon has completed its voluntary emission reduction program of 1,3-butadiene (BD) and other chemicals over one year ahead of schedule. We and other BD-emitters are planning and/or implementing further BD emission reductions. Nevertheless, even if all industrial sources of BD were eliminated, the levels of BD that would still be found in Louisville's ambient air would be considered unacceptable when compared to the challenging risk goal of one in a million.

5.) It is not reasonable to include ethyl acrylate (EA) in the list of 18 toxic chemicals. The STAR proposal focuses on air quality and potential health effects from chemical exposure to toxic chemicals in the air. EA is not a carcinogenic inhalation hazard and major references such as ACGIH and IRIS do not designate EA as a carcinogen.

By cross-referencing the California list, EA is treated as a carcinogen by STAR. Our understanding is that the California list is largely based upon ground clean-up risks. Of course, we are dealing with inhalation risks, not potential for ground or contaminated water ingestion.

Further, carcinogenic implications for EA appear to arise from research study findings of prestomach carcinoma in rats and mice by gavage. In other words, the few references that list EA as possibly carcinogenic appear to base their categorization on findings of animal ingestion, not animal inhalation and not human inhalation.

6.) The Integrated Risk Information System (IRIS) defines the cancer inhalation hazard used in the STAR methodology for determining cancer risk of most chemicals. The value reported for acrylonitrile is outdated. Since the initial determination of the IRIS value by EPA, there have been sixteen epidemiological studies showing no increased cancer risk in humans attributable to acrylonitrile exposure. The EPA has acknowledged as much and is currently working on the second internal draft of their IRIS Chemical Assessment. An independent contractor (Sapphire Group) has completed a study on behalf of the Acrylonitrile Group (AN Group). EPA participated in a peer review of this study. The

Sapphire Group recommended a cancer inhalation risk value of 1E-1. Reasonable estimates of the cancer risk from acrylonitrile exposure should be based upon more current understandings of human health. The Sapphire Group finding should be included in the methodology for determining the cancer risk from acrylonitrile exposure.

7.) The weight-of-evidence (WOE) rating for acrylonitrile is too severe and so the carcinogenic toxicity is overstated. The International Agency for Research on Cancer (IARC) lowered its rating for acrylonitrile in 2003 from a probable carcinogen to a possible carcinogen. According to IARC, this classification is used when there is inadequate evidence of cancer in humans, but sufficient evidence in animals. The STAR proposal does not utilize current health research information and so the methodology is flawed and does not result in reasonable cancer risk estimates for exposure to acrylonitrile.

8.) We have worked our way into a very low fugitive leak rate for all regulated components (flanges, valves, etc.). Further regulatory control seems illogical. However, if STAR must address this issue, we request the reasonable elements offered by GLI and LCP be incorporated into the regulations.

9.) In its Preliminary Regulatory Impact Analysis, APCD has estimated the cost of reducing toxic air emissions for STAR compliance as $5,000-$10,000 per ton. Using an EPA estimating tool, our consultant, Kentuckiana Engineering, explored possible control technologies for their associated costs on two of our six main finishing lines. Of the three technologies worthy of further consideration (catalytic incineration, regenerative oxidation and thermal oxidation), costs per ton per year of controlled acrylonitrile and 1,3-butadiene ranged from $94,000 to $775,000 on one line and $271,000 to $1,610,000 on the other line. (These costs per ton include amortized capital costs and annual operating costs.) Multiplying by the controlled tons per year for each of these lines yields total costs of $790,000 to $6,400,000 per year and $530,000 to 3,100,000 per year, respectively. The total annual cost range for these two processes combined would then be $1,320,000 to $9,500,000. Since these costs only address a third of our finishing processes, total annual costs for our six finishing lines alone (not including fugitives and misc. vents) could be up to three times higher.

The economic impact analysis contained in the STAR regulation is unreasonable and grossly ignores any cost/benefit analysis.

10.) Zeon Chemicals is already heavily regulated and subject to compliance with more than one MACT standard. In many cases, MACT or state-of-art technology is in place and further reduction is either not technically feasible or the economic impact of further reduction is prohibitive. The proposed regulation should allow compliance with the MACT standards as an acceptable alternative to the methodology described by the STAR plan without having to enter into the variance process outlined in the regulation.

11.) Since taking ownership of the Kentucky Plant in 1989, emissions of acrylonitrile (AN) and 1,3-butadiene (BD have been reduced by 71%. STAR-compliant modeling by our consultant, Kentuckiana Engineering, has indicated that we would have to reduce our emissions of AN and BD by **an additional 97%**. This is absolutely unreasonable!

Should you care to discuss any of these matters, you may call me at 775-2061 or Tom Herman at 775-7719.

Sincerely,

William T. Simpson.
Plant Manager, Kentucky Plant
Zeon Chemicals L.P.

cc: Tom Herman

C:\Documents and Settings\Herman\My Documents\word\APCD STAR Comments 2-14-05.doc